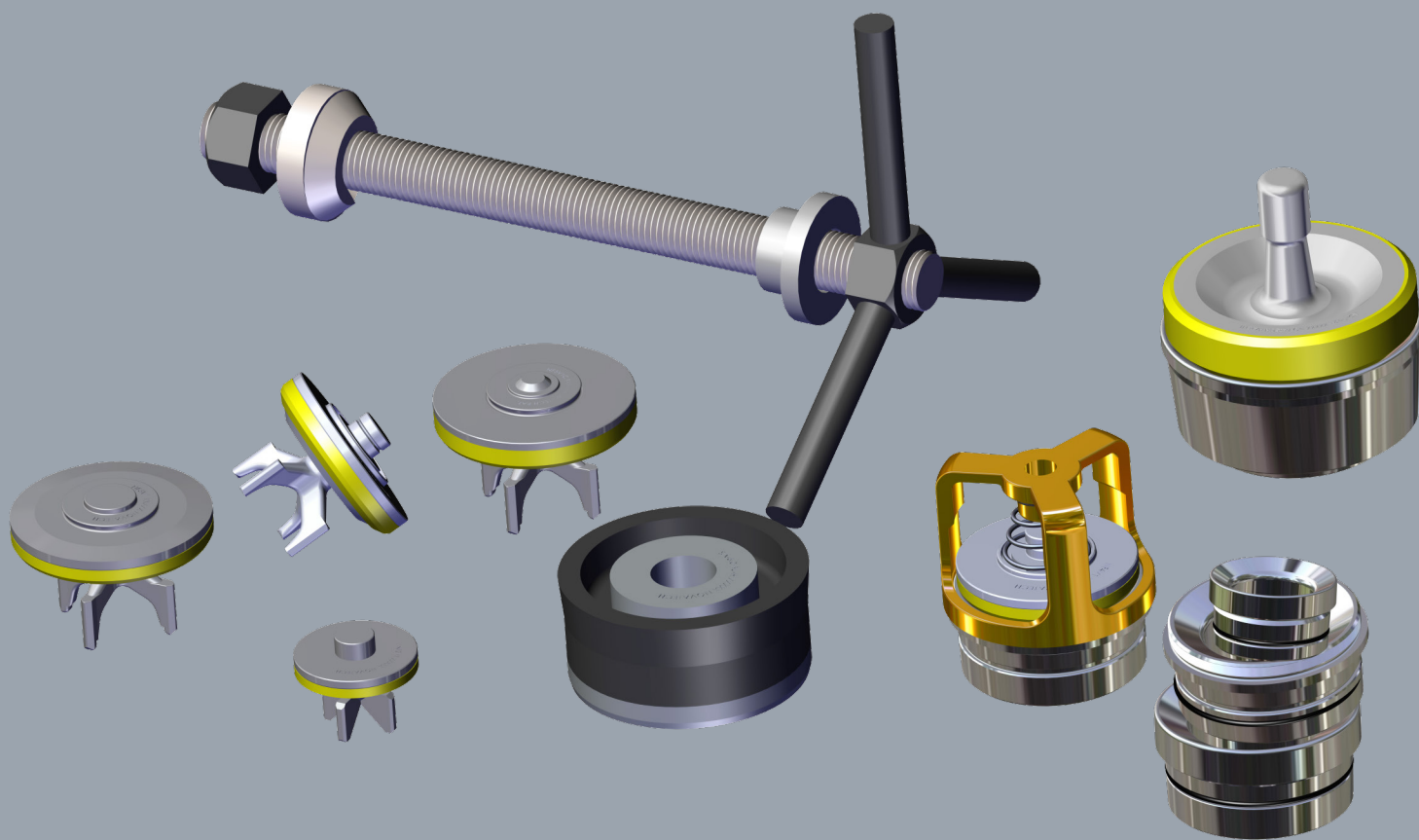


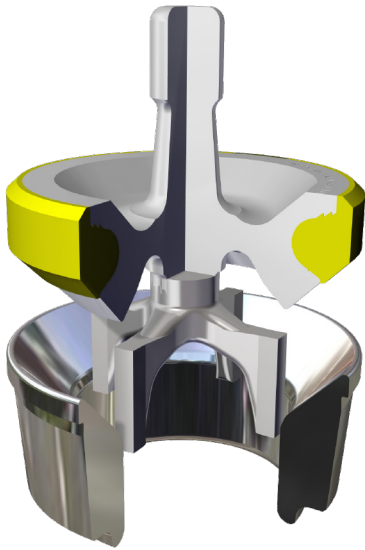
SPM™ Oil & Gas

A Caterpillar Company

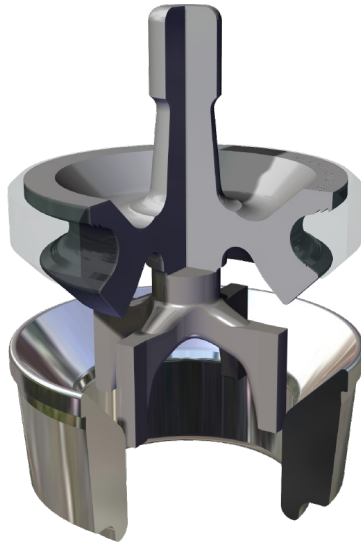
**Novatech® Pressure
Pumping Guide**



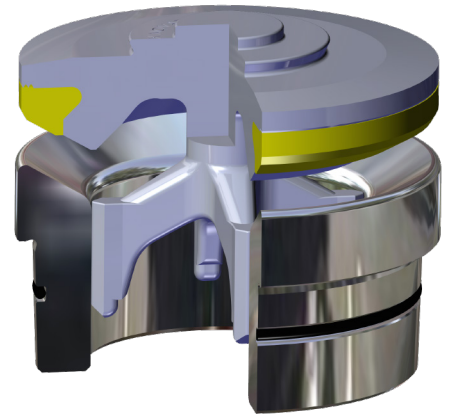
Novatech® Pressure Pumping Guide



1



2



5

Footnotes behind part numbers on subsequent pages correlate with the numbered illustrations shown here.

- 1 Denotes full open valves with Cast-N-Place™ non-replaceable inserts. Valves and seats interchangeable with Harrisburg Roughneck valves and seats.
- 2 Denotes full open valves with special high temperature Cast-N-Place™ non-replaceable inserts. Valves and seats interchangeable with Harrisburg Roughneck valves and seats.
- 3 **(Not shown)** Drilling standard replaceable insert -160°F.
- 4 **(Not shown)** Denotes well service valves with replaceable Novatech® “Snap-On” inserts. Inserts; interchangeable with SPM and Harrisburg Roughneck valves, inserts, and seats.
- 5 Denotes well service valves with Cast-N-Place™ non-replaceable inserts; interchangeable with SPM & Harrisburg Roughneck valves and seats.

Note: Part numbers within the pump listings denote mud pump full open valve and seat.

Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Aplex							
SC 300L Discharge		ND-4-V1	ND-4-S3	5710-33	NF-4-I	ND-4-C1	ND-4-PH
SC 300L Suction		ND-4-V1	ND-4-S2	5710-33	NF-4-I	ND-4-C1	ND-4-PH
American Block							
K-2200		ND-7-V2 ¹ ND-7-V2HC ²	ND-7-S12	5710-115L			ND-8-PH
K-1600		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S12	5710-115L	ND-7-I		ND-7-PH
K-1300, K-1000, K-800		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S4	5710-115	ND-6-I		ND-6-PH
Axon							
HD-500	3 ³ / ₈ 4-4 ¹ / ₂	NF-3-V5 NF-4-V8	NF-3-S7 NF-4-S19	1235-3HD 1235-4HD	NF-3-I NF-4-I		ND-4-PH
BA0JI – Bomco							
F-2200, F2200HL		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-115L			ND-8-PH
F-1600HL, F-1600, F-1300		ND-7-V2 ¹ ND7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
F-1000, F-800		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
F-500		ND-5-V2 ¹	ND-5-S1	5710-30			ND-5-PH
BJ							
Pacemaker (Horizontal Suction) Discharge	3 ¹ / ₂ -5	NF-4-V1 ⁴	NF-4-S16	1235-84	NF-4-I		ND-4-PH
Pacemaker (Horizontal Suction) Suction	3 ¹ / ₂ -5	NF-5-V4 ⁴	NF-5-S4	1235-143	NF-5-I		ND-4-PH
Pacemaker (Vertical Suction)	3 ¹ / ₂ -5	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S1	19000-3	NF-5-I		ND-5-PH
BJ – Wheatly							
BJ-8		NF-4-V1 ⁴	NF-4-S10	1235-84	NF-4-I		ND-4-PH
Clark							
T-440-A, -B, T-380, -A, -B, -S		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-30	ND-7-I		ND-7-PH

¹ Drilling Cast-N-Place™ standard insert – 160°F

² Drilling Cast-N-Place™ high-temperature insert – 300°F

³ Drilling standard replaceable insert – 160°F

⁴ Well service valve with standard snap on replaceable insert – 160°F

⁵ Well service valve with standard Cast-N-Place™ non-replaceable insert

Denotes optional valve, seat or spring for this specific pump only!

* Denotes non-stock items

Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
CMV (Clarksville)							
H-1600, C-1300, C-1800, J-200	3¾-4	NF-5-V1 ⁶ NF-4-V1-C ⁷	NF-4-S1 NF-4-S1	19000-4 19000-4	NF-4-I		ND-4-PH ND-4-PH
	4½-5	NF-5-V1 ⁶ NF-5-V1-C ⁷	NF-5-S1 NF-5-S1	19000-2 19000-2	NF-5-I		ND-5-PH ND-5-PH
	5½-6	NF-6-V1 ⁶ NF-6-V1-C ⁷	NF-6-S3 NF-6-S3	19000-1 19000-1	NF-6-I		NF-6-PH NF-6-PH
	6½-6¾	NF-7-V1 ⁶	NF-7-S1	1235-140	NF-7-I		NF-7-PH
Demay							
HD-500	3⅞ 4-4½	NF-3-V5 NF-4-V8	NF-3-S7 NF-4-S19	1235-3HD 1235-4HD	NF-3-I NF-4-I		ND-4-PH
Dowell							
MD01, ME02, ME03, MF04, TD04, TE04, TE05, TF04-05 (Dis), TF06, TF07, TF09, TG05, TG06, TH05, TH08, TL05, TL06, TL07, OG01, OG02, OL02, OL03, FOP1, EOP1, EOP12 Discharge		NF-5-V1-C ⁵	NF-5-DS1				ND-5-PH
MD01, ME02, ME03, MF04, TD04, TE04, TE05, TF04-05 (Dis), TF06, TF07, TF09, TG05, TG06, TH05, TH08, TL05, TL06, TL07, OG01, OG02, OL02, OL03, FOP1, EOP1, EOP12 Suction	22.5K 15K	NF-5-V1C-22.5K ⁵ NF-5-V1C-15K ⁵	NF-5-DS1				ND-5-PH
Dragon							
660HP		ND-5-V2 ¹	ND-5-S1	5710-30			ND-5-PH
Workforce 360		ND-4-V1 ⁶	NF-4-S5	5710-33 5710-78 [#]	NF-4-I		ND-4-PH
Drillmec							
10T1300, 9T000, 8T800, 12T1600		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S4	5710-115	ND-6-I		ND-6-PH
7TS600		ND-5-V2 ¹	ND-5-S3	5710-115	NF-5-I		ND-5-PH

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³ Drilling standard replaceable insert – 160°F

⁴ Well service valve with standard snap on replaceable insert – 160°F

⁵ Well service valve with standard Cast-N-Place™ non-replaceable insert

[#] Denotes optional valve, seat or spring for this specific pump only!

* Denotes non-stock items

Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Ellis Williams							
14-W-400		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-32	ND-7-I		ND-7-PH
15-W-600, 16-W-800		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-32			ND-8-PH
W-1000, 9-W-1000, W-600, WH-600		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
W-3000		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-115L			ND-8-PH
W-1400, W-2000		ND-7-V2 ¹ ND-7-V2CH ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
W-440-LP, W-446, WH-440		NF-4-V7 ⁴ NF-4-V2 ^{4#}	NF-4-S5	5710-38 5710-113 ^{**}	NF-4-IA		ND-4-PH
W-440-HP Discharge		NF-4-V2 ⁴	NF-4-S5	5710-38	NF-4-IA	NF-2-C1	ND-4-PH
W-440-HP Suction		NF-2-V2 ⁴	NF-2-S2	5710-17	NF-2-I	NF-2-C1	ND-4-PH
W-250-B, -C		NF-2-V1 ⁴	NF-2-S2	5710-17	NF-2-I	NF-2-C1	

EWECO (Ellis Williams Engineering Company)

EH-2200-14, EH-2200-15, EQ-3000, EQ-2200, EQ-1700, EQ-1300, E-2200-15, E-1700-14 (5000 psi F.E.), E-1600, E-1300, E-1100, E-600, E-800 PZ		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
E-1700-14 (7500 psi F.E.), EQ-1000, EQ-1300, EQ-1700, EQ-2200, EQ-750, EH-1000, E-800		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
EH-2200-14		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-115L			ND-8-PH
EH-750, E-447- EQ-570		ND-5-V2 ¹	ND-5-S1	5710-30			ND-5-PH

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³ Drilling standard replaceable insert – 160°F

⁴ Well service valve with standard snap on replaceable insert – 160°F

⁵ Well service valve with standard Cast-N-Place™ non-replaceable insert

Denotes optional valve, seat or spring for this specific pump only!

* Denotes non-stock items

Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
EMSCO							
D-850, DC-850, DC-1000, DC-1650, DC-1350, DB-700, D-550, DA-500, DB-550, C-16, B-14		ND-8-V2 ¹ ND-8-V2H ²	ND-8-S2	5710-32			ND-8-PH
CA-16, D-16, D-500, D-300, BA-14, D-14, D-375		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND7-S1	5710-32	ND-7-I		ND-7-PH
D-225, D-125		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-30	ND-6-I		ND-6-PH
D-175, D-12, A-10		ND-5-V2 ¹	ND-5-S4	5710-30			ND-5-PH
FC-2200		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-115L			ND-5-PH
F-1300, F-1600, FA-1300, FA-1600, FA-1300 II, FA-1600 II, FB-1300, FB-1600, FC-1300, FC-1600, FD-1300, FD-1600		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
F-800, F-1000		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
F-750, F-650, F-500, F-350		ND-5-V2 ¹	ND-5-S1	5710-30			ND-5-PH
F-350P		ND-4-V1 ⁴	NF-4-S5	5710-33 5710-78 [#]	NF-4-I		ND-4-PH
F-350HP (Piston & Plunger)		NF-2-V1 ⁴	NF-2-S8	5710-03	NF-2-I	NF-2-CI	
Failing							
FM-45		NF-4-V5 ⁴	NF-4-S8	5710-03	NF-4-I		ND-4-PH
L-100		NF-3-V6 ⁴	NF-3-S6	5710-03	NF-3-IA		
Fairbanks Morse							
FIG.6188		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-30	ND-7-I		ND-7-PH
FIG.6285, 6185, 6183		NF-4-V5 ⁴	NF-4-S8	5710-03	NF-4-I		ND-4-PH
FIG.6182, 6181		NF-3-V6 ⁴	NF-3-S6	5710-03	NF-3-IA		
FMC							
WQ-2400, -2700	4½-5	NF-5-V1 ⁶ NF-5-V1-C ⁷	NF-5D-S1		NF-5-I		ND-5-PH

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² Drilling Cast-N-Place™ high-temperature insert – 300°F

³ Drilling standard replaceable insert – 160°F

⁴ Well service valve with standard snap on replaceable insert – 160°F

⁵ Well service valve with standard Cast-N-Place™ non-replaceable insert

[#] Denotes optional valve, seat or spring for this specific pump only!

* Denotes non-stock items

Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
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Gardner Denver (Duplex)

KJ-KXJ-B, GN-CXO, GO-GXO,GN-GXN, GO-GXN, FK-FXK		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-32			ND-8-PH
EJ-EQ, EN-EQ, EN-EXQ, EJ-FXQ, EN-EN, EJ-EN, EJ-EXN, EN-EXN, FXDA, FZ-FXZ, FY-FXX, FY-FS, FY-FXD, FY-FXE, FXDA, FO-FXO-FO-2000, FO-FOX-A thru -K		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S5	5710-32	ND-7-I		ND-7-PH
FXN, EK-EK, EK-EXK		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-32	ND-7-I		ND-7-PH
FXZ-FXZ-H, -J, FXO-FXO, -B, -L, -M		ND-5-V2 ¹	ND-5-S5	5710-30			ND-5-PH
FD-FS, FD-FJ-A, FD-FJ-B, FD-FXD, FD-FXE, FC-FXE, FC-FS, EF-FS, EF-2000, FD-FXX, FG-FXG, -P, -R, -T, FG-AG, FG-AG-B, FG-AG-D, FG-2000, FG-4000, FG-FXG, FG-FXG-A thru -L, FD-FXX-J		NF-4-V5 ⁴	NF-4-S8	5710-03	NF-4-I		ND-4-PH
EF-FXD, EF-PXD, FC-FXD-A thru -L, FC-FXD, FC-FXO, EW, EW-1000, FJ-FS, EW-FJ, FJ-FJ, EW-PXD, EF, ET, ET-PXD, FA-FXX, FC-FXX-A thru -M, -V, FC-FXX-S, EF-FXX-AS thru -D		NF-4-V7 ⁴	NF-4-S2	5710-03	NF-4-IA		ND-4-PH
FC-FXD-R thru -Z, FC-FXX-Z, FC-FXX-AA thru -AG		NF-4-V7 ⁴	NF-4-S12	5710-03	NF-4-IA		ND-4-PH
LF-5, FF-AF, FF-AXF, FF-2000, FF-4000, FF-FXF, -A thru -E, -M		NF-3-V6 ⁴	NF-3-S6	5710-03	NF-3-IA		
LF-5, FF-AF, FF-AXF, FF-2000, FF-4000, FF-FXF, -A thru -E, -M		NF-3-V6 ⁴	NF-3-S6	5710-03	NF-3-IA		

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² Drilling Cast-N-Place™ high-temperature insert – 300°F

³ Drilling standard replaceable insert – 160°F

⁴ Well service valve with standard snap on replaceable insert – 160°F

⁵ Well service valve with standard Cast-N-Place™ non-replaceable insert

Denotes optional valve, seat or spring for this specific pump only!

* Denotes non-stock items

Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Gardner Denver (Triplex Drilling Pump)							
PZ-2400		ND-8-V2 ¹ ND-8-V2H ²	ND-8-S2	5710-115L			ND-8-PH
PZ-L(11) -A thru -F, PZ-K(10), PZ-J(9) -C , -D, PZ-H(8)-E, VE, PZ-G(7)-A, -B		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
PXL, PZ-L(11), PZ-K(10) with 7500 psi. Fluid End API 6 Valves & Seats		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
PZ-9-A, -B, PV-9, PZ-8-A, -B, -D, PO-7, PY-7-A, -C, -E, -G		ND-5-V2 ¹	ND-5-S1	5710-30			ND-5-PH
PJ-8A, -B, PJHB, PAJAA, -D, -E, -F, -J, -K, PAH-BFB, -BFC, PAHBF, TGT, TGH		ND-4-V1 ⁴	NF-4-S5	5710-33 5710-78 ^{#*}	NF-4-I		ND-4-PH

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² Drilling Cast-N-Place™ high-temperature insert – 300°F

³ Drilling standard replaceable insert – 160°F

⁴ Well service valve with standard snap on replaceable insert – 160°F

⁵ Well service valve with standard Cast-N-Place™ non-replaceable insert

Denotes optional valve, seat or spring for this specific pump only!

* Denotes non-stock items

Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Gardner Denver (Triplex Well Service Pump)							
GD-3000HP Medium Pressure F.E.		NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3		NF-6-I		NF-6-PH
GD-3000HP Med-High Pressure F.E.		NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3		NF-6-I		NF-6-PH
GD-3000HP High Pressure F.E.		NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S1		NF-5-I		ND-5-PH
C-2250, C-2500, C-2500HP, HD-2250, GD-2000, GD-2250, GD-2500, GD-2500HP	3¾-4	NF-4-V1 ⁴ NF-4-V1-C ⁵	NF-4-S1 NF-4-S1	19000-4 19000-4	NF-4-I		ND-4-PH ND-4-PH
	4½-5	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S1 NF-5-S1	19000-2 19000-2	NF-5-I		ND-5-PH ND-5-PH
	5½-6	NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3 NF-6-S3	19000-1 19000-1	NF-6-I		NF-6-PH NF-6-PH
	6½-6¾	NF-7-V1 ⁴	NF-7-S1	1235-140	NF-7-I		NF-7-PH
GWS, GD 1250, GWS 2250	5-5½	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5D-S1		NF-5-I		ND-5-PH
GD-1000 Warthog, GD-1000HP	3½-4	NF-4-V1 ⁴ NF-4-V1-C ⁵	NF-4-S1 NF-4-S1	19000-4 19000-4	NF-4-I		ND-4-PH ND-4-PH
	4½-5	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S1 NF-5-S1	19000-2 19000-2	NF-5-I		ND-5-PH ND-5-PH
	5½-6	NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3 NF-6-S3	19000-1 19000-1	NF-6-I		NF-6-PH NF-6-PH
Compact 600HP, OPI 600, -600HP	2¾-3	NF-2-V1 ⁴	NF-2-S1	1235-141	NF-2-I		ND-4-PH
	3½-4	NF-4-V2 ⁴	NF-4-S2	19000-4	NF-4-IA		ND-5-PH
	4½-5	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S2 NF-5-S2	19000-3 19000-3	NF-5-I		ND-5-PH
PA-8C, -D, -E		NF-4-V7 ⁴	NF-4-S2	5710-17	NF-4-IA		ND-4-PH
PA-8H, -K, -L, -Q, PA-8R, -S, -U, -Y		NF-4-V7 ⁴	NF-4-S12	5710-17	NF-4-IA		ND-4-PH
PA-8N, TEEA-D, PAHAA (Plunger Model), PAHAF (Plunger Model), PE-5C, -E, -J, -U, TEE-BAA		NF-2-V1 ⁴	NF-2-S2	5710-03	NF-2-I	NF-2-C1	
PE-5T, -Z, TEEBFB, TEEBFC, TEED-D, TEEE-D, TEEB-D, TGE 2 Inch Seat ID		NF-2-V1 ⁴	NF-2-S5	5710-03	NF-2-I	NF-2-C1	
PE-5T, -Z, TEEBFB, TEEBFC, TEED-D, TEEE-D, TEEB-D, TGE 2.375 Inch Seat ID		NF-2-V3 ^{6 #}	NF-2-S9 [#]	5710-03	NF-2-IA	NF-2-C1	
PE-5F, -G, -H, -K, -L, Q, PE-5R, -T, -V, -W, -X, PE-5Y, -Z, -AA, -AB, TEEBCA, -BGB, -BFA		NF-1A-V1 ⁶	NF-1A-S1	5710-03	NF-1A-I	NF-1A-C1	

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² Drilling Cast-N-Place™ high-temperature insert – 300°F

³ Drilling standard replaceable insert – 160°F

⁴ Well service valve with standard snap on replaceable insert – 160°F

⁵ Well service valve with standard Cast-N-Place™ non-replaceable insert

Denotes optional valve, seat or spring for this specific pump only!

* Denotes non-stock items

Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Gasso							
FIG. 550, 1550, 1550C, 1560, 1563, 2050, 1847, 1860, 2247, 1849, 2249		NF-4-V7 ⁴	NF-4-S7	5710-33	NF-4-IA		ND-4-PH
3968, 3969, 3671WS, 3673, 3675, 5885WS, 3775, 3776		NF-3-V6 ⁴	NF-3-S9	5710-17	NF-3-IA	NF-3-C1	
FIG. 1742, 1755, 1654, 1654C, 1757		NF-4-V7 ⁴	NF-4-S13A	570-05	NF-4-IA		ND-4-PH
Geoquip							
H-600	3½-4½	NF-4-V2 ⁴	NF-4-S2	19000-4	NF-4-IA		ND-4-PH
H-880, LC-1200	3¾-4	NF-4-V1 ⁴	NF-4-S1	19000-4	NF-4-I		ND-4-PH
		NF-4-V1-C ⁵	NF-4-S1	19000-4			ND-4-PH
	4½-5	NF-5-V1 ⁴	NF-5-S1	19000-2	NF-5-I		ND-5-PH
		NF-5-V1-C ⁵	NF-5-S1	19000-2			ND-5-PH
	5½-6	NF-6-V1 ⁴	NF-6-S3	19000-1	NF-6-I		NF-6-PH
		NF-6-V1-C ⁵	NF-6-S3	19000-1			NF-6-PH
	6½-6¾	NF-7-V1 ⁶	NF-7-S1	1235-140	NF-7-I		NF-7-PH
H-1600, C-1300, C-1800, J-2000	3¾-4	NF-4-V1 ⁴	NF-4-S1	19000-4	NF-4-I		ND-4-PH
		NF-4-V1-C ⁵	NF-4-S1	19000-4			ND-4-PH
	4½-5	NF-5-V1 ⁴	NF-5-S1	19000-2	NF-5-I		ND-5-PH
		NF-5-V1-C ⁵	NF-5-S1	19000-2			ND-5-PH
	5½-6	NF-6-V1 ⁴	NF-6-S3	19000-1			NF-6-PH
		NF-6-V1-C ⁵	NF-6-S3	19000-1	NF-6-I		NF-6-PH
	6½-6¾	NF-7-V1 ⁴	NF-7-S1	1235-140	NF-7-I		NF-7-PH
Gist							
GT-78-1000 (Plunger)	4-4½	NF-5-V1 ⁶	NF-5-S2	19000-3	NF-5-1		ND-5-PH
	5-7½	NF-5-V1-C ⁷					
		NF-6-V1 ⁶	NF-6-S3	19000-1	NF-6-I		NF-6-PH
		NF-6-V1-C ⁷					
GT-68-500, GPO-500		ND-4-V1 ⁴	ND-4-S2	5710-33	NF-4-I	ND-4-C1	ND-4-PH
GT-78-1000 (Piston)		NF-6-V1 ⁴	NF-6-S3	19000-1	NF-6-I		NF-6-PH
		NF-6-V1-C ⁵					
Great American							
GA-550, GA-750		ND-8-V2 ¹	ND-8-S2	5710-32			ND-8-PH
		ND-8-V2HC ²					
Halliburton							
HT-400 (Piston F.E.)		ND-4-V1 ⁴	ND-4-S2	5710-33	NF-4-I	ND-4-C1	ND-4-PH
T-10		NF-4-V7 ⁴	NF-4-S7		NF-4-IA		ND-4-PH
HT-400 (Plunger F.E.)	3¾-4	NF-3-V5	NF-3-S7	1235-3HD	NF-3-I		
	4½	NF-4-V8	NF-4-S19	1235-4HD	NF-4-I		ND-4-PH

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Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Hanghua							
HHF-1600, HHF-1300		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
HHF-1000, HHF-800		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
HHF-500		ND-5-V2 ¹	ND-5-S1	5710-30			ND-5-PH
Ideco							
MM-700A, MM-700F, MM-600F, MM-600FB, MM-550F		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-32			ND-8-PH
MM-450, MM300, T-440-B, -C		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-32	ND-7-I		ND-7-PH
MM-200		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-30	ND-6-I		ND-6-PH
T-500, T-800, T-1000		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
T-1300, T-1600		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
Kana							
PAH-350		ND-4-V1 ⁶	NF-4-S5	5710-33 5710-78 [#]	NF-4-I		
K&T							
TEE, PE5, 165, 400		NF-2-V1 ⁴	NF-2-S8	5710-03	NF-2-I	NF-2-C1	

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Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Letourneau – Lewco							
14-W-400		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-32	ND-7-I		ND-7-PH
15-W-600, 16-W-800		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-32			ND-8-PH
W-3000		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-115L			ND-8-PH
W-1400, W-2000, W-2214, W-2215, WH-1611 (5000 psi)		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
W-1100, W-1712, W-1714, WH-1000, W-1000, 9-W-1000, W-600, WH-1000, WH-1312, WH-1611 (7500 psi), WH-1612, WH-2000, WH-2214		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
WH-600, WH-800		ND-5-V2 ¹	ND-5-S1	5710-30			ND-5-PH
W-446, W-446-SF		ND-4-V1 ⁴	NF-4-S5	5710-33 5710-78 [#]	NF-4-I		ND-4-PH
W-440-LP, WH-440		NF-4-V7 ⁴ NF-4-V2 ^{4#}	NF-4-S5	5710-38 5710-113 ^{**}	NF-4-IA		ND-4-PH
W-440-HP Discharge		NF-4-V2 ⁴	NF-4-S5	5710-38	NF-4-IA	NF-2-C1	ND-4-PH
W-440-HP Suction		NF-2-V1 ⁴	NF-2-S2	5710-17	NF-2-I	NF-2-C1	ND-4-PH
W-250-B, -C		NF-2-V1 ⁴	NF-2-S2	5710-17	NF-2-I	NF-2-C1	
Maxxum							
1600, 1300		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	57110-115L	ND-7-I		ND-7-PH
1000, 800		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
MSI (Dixie Ironworks)							
TI 600, QI 1000	2¾-3 3½-4½	NF-2-V1 ⁴ NF-4-V2 ⁴	NF-2-S1 NF-4-S2	1235-141 19000-4	NF-2-I NF-4-IA		ND-4-PH

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Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
National							
N-1600, N-1300, N-900, N-1100, N-1000, H-1250 "N" Type, G-1000-C "N" Type, E-700 "N" Type		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S7	5710-32			ND-8-PH
K-700A, K-500 (Cast), K-500 (Forged), C-250 (Forged)		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-32			ND-8-PH
K-380, K-280, K-180, C-150B, C-150		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-32	ND-7-I		ND-7-PH
KSH-280, KSH-180		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-32	ND-6-I		ND-6-PH
14-P-200, 14-P-220		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S7	5710-115L			ND-8-PH
12-P-160		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S12	5710-115L	ND-7-I		ND-7-PH
10-P-130, 9-P-100, 8-P-80		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S4	5710-115	ND-6-I		ND-6-PH
7-P-50		ND-5-V2 ¹	ND-5-S3	5710-115	NF-5-I		ND-5-PH
JWS-400 (Pistons Discharge)		NF-3-V4 ⁴ NF-3-V3 ^{4#}	NF-3-S10	5710-115	NF-3-I		
JWS-400 Suction		NF-3-V4 ⁴ NF-3-V3 ^{4#}	NF-3-S11	19000-5	NF-3-I		
JWS-300L Discharge		NF-4-V7 ⁴ NF-4-V2 ^{4#}	NF-4-S18	5710-118	NF-4-IA		ND-4-PH
JWS-165L, JWS-5L Suction		NF-4-V7 ⁴ NF-4-V2 ^{4#}	NF-4-S17	19000-6	NF-4-IA		ND-4-PH
JWS-185, JWS-340 Discharge		NF-4-V7 ⁴ NF-4-V2 ^{4#}	NF-4-S18	National Springs Suction & Discharge	NF-4-IA		ND-4-PH
JWS-185, JWS-340 Suction		NF-4-V7 ⁴ NF-4-V2 ^{4#}	NF-4-S17	National Springs Suction & Discharge	NF-4-IA		ND-4-PH
JWS-400 W/Cage Valve, JWS-165LX, -300LX							
D-50		NF-4-V7 ⁴	NF-4-S13A	5710-06	NF-4-IA		ND-4-PH

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Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
OFM							
1000-1300WS	4-4½	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S2	19000-3	NF-5-I		ND-5-PH
	5-7½	NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3	19000-4	NF-6-I		NF-6-PH
350 AWS, 500 AWS	2¾-3	NF-2-V1 ⁴	NF-2-S1	1235-141	NF-2-I		ND-4-PH
	3½-4	NF-4-V2 ⁴	NF-4-S2	19000-4	NF-4-IA		ND-5-PH
	4½-5	NF-5-V1 ⁴	NF-5-S2	19000-3	NF-5-I		ND-5-PH
	4½-5	NF-5-V1-C ⁵					
880 AWS	3½-4	NF-4-V1 ⁴ NF-4-V1-C ⁵	NF-4-S1	19000-4	NF-4-I		ND-4-PH
	4½-5	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S1	19000-2	NF-5-I		ND-5-PH
	5½-6	NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3	19000-1	NF-6-I		ND-6-PH
1000 AWS, 1300 AWS, 1600 AWS, 1800 AWS, 1600 BWS, GD-200	3¾-4	NF-4-V1 ⁴ NF-4-V1-C ⁵	NF-4-S1	19000-4	NF-4-I		NF-4-PH
	4½-5	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S1	19000-2	NF-5-I		NF-5-PH
	5½-6	NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3	19000-1	NF-6-I		NF-6-PH
	6½-6¾	NF-7-V1 ⁴	NF-7-S1	1235-140	NF-7-I		NF-7-PH
700D (Piston)		NF-6-V1 ⁴	NF-6-S3	19000-4	NF-6-I		NF-6-PH
350 D, 350 DG		ND-4-V1 ⁴	ND-4-S2	5710-33	NF-4-I	ND-4-C1	ND-4-PH
350 DWS		NF-5-V1 ⁴	NF-5-S2	19000-3	NF-5-I		ND-5-PH
500 DC, 600 D, 700 DL		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH

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Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Oilwell							
1700-P, 1400-P		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-32			ND-8-PH
510-P, 6-P-LD		NF-3-V4 ⁴	NF-3-S3	5710-32	NF-3-I		
6-P, 6-P-HD		NF-2-V3 ⁴	NF-25-10	5710-03	NF-2-IA		
1400-PT, 1700-PT, A1400-PT, A1700-PT, 1100-PT, 850-PT, A1100-PT, A850-PT, HD1700PT		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
A600PT, A560-PT, 350-PT		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
46P, 346P, 326P		NF-3-V3 ⁴	NF-34-S3	5710-03	NF-3-I		
SA-625-5, SA-626-5, SA-630-5, SA-634-5		NF-2-V1 ⁴	NF-2-S1		NF-2-I		
SA-640-5, SA-650		NF-4-V2 ⁴	NF-4-S2	5710-38	NF-4-IA		ND-4-PH
SB-644-5, SA-644-5, SA-644-10, SA-650-5, SA-650-10, SB-650-5		NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S2	19000-3	NF-5-I		ND-5-PH
S-610 Discharge		NF-3-V3 ⁴	NF-3-S4		NF-3-I		
S-610 Suction		NF-4-V3 ⁴	NF-4-S4		NF-4-I		
Super 48, S284, SA824, S856-6, SA-656-6		NF-7-V1 ⁴	NF-7-S1	5710-115L	NF-7-I		NF-7-PH
48-P-HD, 58-P-D		NF-4-V2 ⁴	NF-4-S13A	5710-03	NF-4-IA		ND-4-PH
S-830, SA-830		NF-4-V2 ⁴	NF-4-S13A	1235-137 *	NF-4-IA		ND-4-PH

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Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Omega							
1000-1300HP	4-4½	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S2	19000-3	NF-5-I		ND-5-PH
	5-7½	NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-5-S3	19000-4	NF-6-I		NF-6-PH
1300HP "MF" F.E., 1800HP "MF" F.E.	3¾-4	NF-4-V1 ⁴ NF-4-V1-C ⁵	NF-4-S1	19000-4	NF-4-I		ND-4-PH
	4½-5	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S1	19000-2	NF-5-I		ND-5-PH
	5½-6	NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3	19000-1	NF-6-I		NF-6-PH
	6½-6¾	NF-7-V1 ⁴	NF-7-S1	1235-140	NF-7-I		NF-7-PH
D-750 (Piston)		NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3	19000-4	NF-6-I		NF-6-PH
D-750L (Piston)		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
OPI							
1000-1300WS	4-4½	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S2	19000-3	NF-5-I		ND-5-PH
	5-7½	NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3	19000-4	NF-6-I		NF-6-PH
350 AWS, 500 AWS	2¾-3	NF-2-V1 ⁴	NF-2-S1	1235-141	NF-2-I		ND-4-PH ND-5-PH ND-5-PH
	3½-4	NF-4-V2 ⁴	NF-4-S2	19000-4	NF-4-IA		
	4½-5	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S2 NF-5-S2	19000-3 19000-3	NF-5-I		
880 AWS	3½-4	NF-4-V1 ⁴ NF-4-V1-C ⁵	NF-4-S1	19000-4	NF-4-I		ND-4-PH
	4½-5	NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S1	19000-2	NF-5-I		ND-5-PH
	5½-6	NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3	19000-1	NF-6-I		NF-6-PH
1000 AWS, 1300 AWS, 1600 AWS, 1800 AWS, 1600 BWS, GD-2000	3¾-4	NF-4-V1 ⁶ NF-4-V1-C ⁷	NF-4-S1	19000-4	NF-4-I		ND-4-PH
	4½-5	NF-5-V1 ⁶ NF-5-V1-C ⁷	NF-5-S1	19000-2	NF-5-I		ND-5-PH
	5½-6	NF-6-V1 ⁶ NF-6-V1-C ⁷	NF-6-S3	19000-1	NF-6-I		NF-6-PH
	6½-6¾	NF-7-V1 ⁶	NF-7-S1	1235-140	NF-7-I		NF-7-PH
700D (Piston)		NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-6-S3	19000-4	NF-6-I		NF-6-PH
350D, 350DG		ND-4-V1 ⁴	ND-4-S2	5710-33	NF-4-I	ND-4-C1	ND-4-PH
350 DWS		NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S2	19000-3	NF-5-I		ND-5-PH
500DC, 600D, 700DL, 700 HDL		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
1000 HDL, 1300 HDL		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH

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Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Pinion							
RB5, RB6		NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S2	19000-3	NF-5-I		ND-5-PH
R&R Smart Pump							
1650		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S4	5710-115	ND-6-I		ND-6-PH
Serva							
TBP 600	3½-4	NF-4-V2 ⁴	NF-4-S2	19000-4	NF-4-IA		ND-4-PH
Skytop Brewster							
B-1000F, B-750F, B-550F, B-500		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S2	5710-32			ND-8-PH
B-1300T, B-1600T		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
B-1000T, B-1100T		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
Southwest Fluid Ends							
Duplex Pump "IVP" Fluid End		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-32	ND-7-I		ND-7-PH
Triplex Pump 7500 psi Fluid End		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S4	5710-115	ND-6-I		ND-6-PH
SPM							
THB175, -225, -350, TBH550, TWS250, TWS400, TWS500LW, TWS600, TWS600S	1¾-3 3½-4½	NF-2-V1 ⁴ NF-4-V2 ⁴	NF-2-S1 NF-4-S2	1235-141 19000-4	NF-2-I NF-4-IA		ND-4-PH
TWS900, QWS1000S	3½-4 3¾-4 4½-5 5½-6	NF-4-V1 ⁴ NF-4-V1-C ⁵ NF-5-V1 ⁴ NF-5-V1-C ⁵ NF-6-V1 ⁴ NF-6-V1-C ⁵	NF-4-S1 NF-5-S1 NF-6-S3	19000-4 19000-2 19000-1	NF-4-I NF-5-I NF-6-I		ND-4-PH ND-5-PH NF-6-PH
TWS1300, TWS1600, TWS1800, TWS1600LW, TWS2250, QWS2000, 2500LW, QWS2500, 2500SD, QWS3500, TBH1050, QBH1575	3¾-4 4½-5 5½-6 6½-6¾	NF-4-V1 ⁴ NF-4-V1-C ⁵ NF-5-V1 ⁴ NF-5-V1-C ⁵ NF-6-V1 ⁴ NF-6-V1-C ⁵ NF-7-V1 ⁴	NF-4-S1 NF-5-S1 NF-6-S3 NF-7-S1	19000-4 19000-2 19000-1 1235-140	NF-4-I NF-5-I NF-6-I NF-7-I		ND-4-PH ND-5-PH NF-6-PH NF-7-PH

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Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
TFI (Texas First Industrial)							
F-1600, F-1300, BH-800II		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
F-1000, F-800		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
F-500		ND-5-V2 ¹	ND-5-S1	5710-30			ND-5-PH
ZB-300		ND-4-V1 ⁴	NF-4-S5	5710-33 5710-78 [#]	NF-4-I		ND-4-PH
ZB-400II	4-4½	NF-4-V2 ⁴	NF-4-S2	19000-4	NF-4-IA		ND-4-PH
TSC							
Work Force 2000		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S12	5710-115L	ND-7-I		ND-7-PH
Work Force Univ.1600 Work Force Univ.1300 Work Force 1200 Work Force 1000 Work Force 700 Work Force 660		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
Work Force 360		ND-4-V1 ⁴	NF-4-S5	5710-33 5710-78 [#]	NF-4-I		ND-4-PH
Tulsa Rig Iron							
TT-250 2 Inch Seat ID		NF-2-V1 ⁶	NF-2-S5	5710-03	NF-2-I	NF-2-CI	
TT-250 2.375 Inch Seat ID		NF-2-V3 ^{6#}	NF-2-S9 [#]	5710-03	NF-2-IA	NF-2-CI	
TT-350, TT-560		ND-4-V1 ⁴	NF-4-S5	5710-33 5710-78 [#]	NF-4-I		ND-4-PH
TT-450, TT-680 Cementing		NF-5-V1-C ⁷ NF-5-V1 ⁶	ND-5-S1	5710-30			ND-5-PH
TT-450, TT-680 Drilling		ND-5-V2 ¹	ND-5-S1	5710-30			ND-5-PH
Weatherford (Ironman)							
MP-13 (F-1300), MP-16 (F-1600)		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
MP-8 (F-800), MP-10 (F-1000)		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S6	5710-115	ND-6-I		ND-6-PH
MP-5 (F-500)		ND-5-V2 ¹	ND-5-S1	5710-30			ND-5-PH

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Pressure Pumping Systems

Pump Model	Plunger Size	Valve Part #	Seat Part #	Spring Part #	Insert Part #	Cage Part #	Puller Part #
Western							
RB 80, RB 81		NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S2	19000-3	NF-5-I		ND-5-PH
Roughrider 500 "Mono Block" F.E.	3½-4½	NF-4-V2 ⁴	NF-4-S2	19000-4	NF-4-IA		ND-4-PH
Roughrider 500 "Segmented" F.E. Discharge	4½	NF-3-V3 ⁴	NF-3-S4		NF-3-I		
Roughrider 500 "Segmented" F.E. Suction	4½	NF-4-V3 ⁴	NF-4-S4		NF-4-I		
Roughrider 1000 "Mono Block" F.E.	4 4½-5 4½-5	NF-4-V3 ⁴ NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-3-S3		NF-3-I NF-5-I		ND-5-PH
Roughrider 1500 "Mono Block" F.E.	4 5 5	NF-4-V3 ⁴ NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-3-S3 NF-5-S1		NF-3-I NF-5-I		ND-5-PH
Wheatley							
FIG.6070		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-32	ND-7-I		ND-7-PH
3F-450, 4F-750		NF-5-V1 ⁴ NF-5-V1-C ⁵	NF-5-S2	19000-3	NF-5-I		ND-5-PH
BJ-8		NF-4-V1 ⁴ NF-4-V1-C ⁵	NF-4-S10	1235-84	NF-4-I		ND-4-PH
5830, 5850, 6050-A, 2050-A, 1550-A, 7036, 1336, 1036		NF-4-V5 ⁴	ND-4-S17	5710-17	NF-4-I		ND-4-PH
Wilson							
600, 900 Giant		ND-8-V2 ¹	ND-8-S2	5710-32			ND-8-PH
Wirth							
TPK 800, -1000 Hydraulic Seat Removal		ND-6-V2 ¹ ND-6-V2HC ² ND-6-V1 ³	ND-6-S7	5710-115	ND-6-I		
TPK 1300, -1600, -2000, TPK 2200 Hydraulic Seat Removal		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S16	5710-115L	ND-7-I		
TPK 800, -1000 Mechanical Seat Removal		ND-7-V2 ¹ ND-7-V2HC ² ND-7-V1 ³	ND-7-S1	5710-115L	ND-7-I		ND-7-PH
TPK 1300, -1600, -2000, TPK 2200 Mechanical Seat Removal		ND-8-V2 ¹ ND-8-V2HC ²	ND-8-S16	5710-115L			ND-8-PH
Worthington							
KKS-1, KLS-1, KMS-1		NF-4-V7 ⁴	NF-4-S7	5710-3	NF-4-IA		ND-4-PH

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